Amendments to the Claims

Please cancel Claims 7-34. Please amend Claims 1-6. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Currently Amended) A method of ~~sorting~~ isolating undifferentiated cells, ~~wherein said method comprises contacting undifferentiated cells with an antibody to a cell-surface antigen, and~~ that primarily differentiate into an epiblast of a blastocyst from a population of undifferentiated cells comprising:

    (a) sorting the population of undifferentiated cells according to the presence or absence of ~~the binding to the antibody~~ PECAM-1 on the surface of said cells; and

    (b) collecting the undifferentiated cells that express PECAM-1 on their cell surface, wherein the undifferentiated cells collected differentiate into an epiblast of a blastocyst at a higher rate than control undifferentiated cells.

2. (Currently Amended) The method of claim 1, wherein ~~the cell-surface antigen is selected from the group consisting of PECAM-1~~ the population of undifferentiated cells are mouse cells and said cells further express SSEA-1~~, SSEA-3, and SSEA-4~~.

3. (Currently Amended) The method of claim 1, wherein the population of undifferentiated cells are embryonic stem (ES) cells derived from mammals or embryonic germ (EG) cells derived from mammals.

4. (Currently Amended) The method of claim 1, wherein the population of undifferentiated cells are transgenic mouse cells.

5. (Currently Amended) The method of claim [[2]] 1 , wherein ~~undifferentiated cells that bind to~~ the presence or absence of PECAM-1 on the surface of the undifferentiated cells is detected by the binding of an antibody to PECAM-1 ~~is sorted out~~.

6. (Currently Amended) The method of claim [[5]] 2, wherein ~~undifferentiated cells that bind to both~~ the expression of SSEA-1 on the surface of said mouse cells is detected by the binding of an antibody to ~~PECAM-1 and an antibody to~~ SSEA-1 ~~are sorted out~~.

7.-34. Canceled.